

IN THE CLAIMS:

Please amend claims as follows:

Claims 1-128 are cancelled

129. (Previously Presented) A method, comprising:

collecting a plurality of transmission events provided by one or more nodes of a network into one or more data structures; and

creating one or more characterization records for at least one data structure of said one or more data structures, one or more transmission events of said plurality of the transmission events being collected to said at least one data structure of said one or more data structures, wherein at least one of said one or more characterization records comprises one or more indicators of a location or locations of one or more data elements comprised in at least one of said one or more transmission events, to allow accessing said at least one of the one or more characterization records to determine said one or more indicators of the location or locations of said one or more data elements.

130. (Previously Presented) The method of claim 129, wherein said collecting and said creating is performed by a site of a plurality of sites comprised in said network.

131. (Previously Presented) The method of claim 129, wherein said one or more data elements are stored within said at least one data structure.

132. (Previously Presented) The method of claim 129, wherein said collecting comprises creating observation records of said plurality of the transmission events and storing said observation records in said one or more data structures, such that said at least one data structure of said one or more data structures comprises one or more observation records of said observation records created using one or more transmission events of said plurality of the transmission events, said one or more observation records being generated using one or more characteristics of said one or more transmission events in order to allow entering said one or more observation records to determine whether at least one of said one or more characteristics is present in said at least one data structure.

133. (Previously Presented) The method of claim 132, wherein said one or more characteristics of said one or more transmission events are one or more of: a period during which a transmission event of said one or more transmission events is occurred, and an internet protocol address of a node of said one or more nodes transmitted said transmission event.

134. (Previously Presented) The method of claim 132, wherein said at least one of said one or more characterization records is an index created using said one or more observation records.

135. (Previously Presented) The method of claim 129, wherein said at least one of said one or more characterization records is an index comprising one or more of: a type of or an importance level for a transmission event of said one or more transmission events of said plurality of the transmission events, an internet protocol address of a node of said one or more nodes transmitted said transmission event, and an internet

protocol address of a node of said one or more nodes being a destination of said transmission event.

136. (Previously Presented) The method of claim 129, wherein said at least one of said one or more characterization records is an index indicating how to enter said at least one of said one or more transmission events unabridged.

137. (Previously Presented) The method of claim 129, wherein said one or more characterization records comprise a summary of said one or more transmission events of said plurality of the transmission events.

138. (Previously Presented) The method of claim 129, wherein at least one of said plurality of the transmission events is a notification.

139. (Previously Presented) The method of claim 129, wherein said one or more data elements comprise partial or complete data comprised in said at least one of the one or more transmission events.

140. (Previously Presented) The method of claim 129, further comprising:

storing said one or more data structures comprising corresponding said one or more characterization records in a memory, in a non-volatile memory or in a data storage.

141. (Previously Presented) The method of claim 129, further comprising:

storing said one or more data structures with corresponding characterization records as a file system or as a hierarchical file system.

142. (Previously Presented) The method of claim 129, wherein one of said one or more characterization records comprise an aggregate summary of said at least one data structure and one or more of other data structures of said one or more data structures.

143. (Previously Presented) The method of claim 129, wherein said network is configured to provide network activity data in a computer system comprising a plurality of nodes interconnected for communicating via said network.

144. (Previously Presented) The method of claim 129, wherein all or selected transmission events of said plurality of the transmission events are notifications provided by all or selected nodes of said one or more nodes of said network.

145. (Previously Presented) The method of claim 129, wherein said location or said locations of the one or more data elements are in said at least one data structure of said one or more data structures.

146. (Previously Presented) The method of claim 129, further comprising:
performing compression of said at least one data structure.

147. (Previously Presented) The method of claim 129, further comprising:

148. (Previously Presented) An apparatus comprising:

a first controller, configured to perform collecting a plurality of transmission events provided by one or more nodes of a network into one or more data structures; and

a second controller, configured to create one or more characterization records for at least one data structure of said one or more data structures, one or more transmission events of said plurality of the transmission events being collected to said at least one data structure of said one or more data structures, wherein at least one of said one or more characterization records comprises one or more indicators of a location or locations of one or more data elements comprised in at least one of said one or more transmission events, to allow accessing said at least one of the one or more characterization records to determine said one or more indicators of the location or locations of said one or more data elements.

149. (Previously Presented) The apparatus of claim 148, wherein said first controller is configured to perform said collecting by creating observation records of said plurality of the transmission events for storing said observation records in said one or more data structures, such that said at least one data structure of said one or more data structures comprises one or more observation records of said observation records created using one or more transmission events of said plurality of the transmission events, said one or more observation records being generated using one or more characteristics of said one or more transmission events in order to allow entering said one or more observation records to determine whether at least one of said one or more characteristics is present in said at least one data structure.

150. (Previously Presented) The apparatus of claim 149, further comprising:

a memory, configured to store said one or more data structures and to store, for said at least one of said one or more data structures, said one or more observation records and said one or more characterization records.

151. (Previously Presented) The apparatus of claim 149, wherein said one or more characteristics of said one or more transmission events are one or more of: a period during which a transmission event of said one or more transmission events is occurred, an internet protocol address of a node of said one or more nodes transmitted said transmission event.

152. (Previously Presented) The apparatus of claim 149, wherein said at least one of said one or more characterization records is an index created using said one or more observation records.

153. (Previously Presented) The apparatus of claim 148, further comprising:

a memory, configured to store said one or more data structures comprising corresponding said one or more characterization records.

154. (Previously Presented) The apparatus of claim 151, wherein said memory is a non-volatile memory or a data storage.

155. (Previously Presented) The apparatus of claim 151, wherein said one or more data structures with corresponding characterization records are stored as a file system or as a hierarchical file system.

156. (Previously Presented) The apparatus of claim 148, wherein said location or said locations of the one or more data elements are in said at least one data structure of said one or more data structures.

157. (Previously Presented) The apparatus of claim 148, wherein said one or more data elements are stored within said at least one data structure.

~~157~~ 158. (Currently Amended) The apparatus of claim 148, wherein said at least one of said one or more characterization records is an index comprising one or more of: a type of or an importance level for a transmission event of said one or more transmission events of said plurality of the transmission events, an internet protocol address of a node of said one or more nodes transmitted said transmission event, and an internet protocol address of a node of said one or more nodes being a destination of said transmission event.

~~158-159~~. (Currently Amended) The apparatus of claim 148, wherein said at least one of said one or more characterization records is an index indicating how to enter said at least one of said one or more transmission events unabridged.

~~159~~ 160. (Currently Amended) The apparatus of claim 148, wherein said one or more characterization records comprise a summary of said one or more transmission events of said plurality of the transmission events.

~~160~~ 161. (Currently Amended) The apparatus of claim 148, wherein at least one of said plurality of the transmission events is a notification.

~~161~~ 162. (Currently Amended) The apparatus of claim 148, wherein said one or more data elements comprise partial or complete data comprised in said at least one of the one or more transmission events.

~~162~~ 163. (Currently Amended) The apparatus of claim 148, wherein one of said one or more characterization records comprise an aggregate summary of said at least one data structure and one or more of other data structures of said one or more data structures.

~~163~~ 164. (Currently Amended) The apparatus of claim 148, wherein all or selected transmission events of said plurality of the transmission events are notifications provided by all or selected nodes of said one or more nodes of said network.

~~164~~ 165. (Currently Amended) The apparatus of claim 148, wherein said location or said locations of the one or more data elements are in said at least one data structure of said one or more data structures.

~~164~~ 166. (Currently Amended) A computer software product, comprising a computer-usable medium having computer readable instructions stored thereon for execution by a processor to perform a method comprising:

collecting a plurality of transmission events provided by one or more nodes of a network into one or more data structures; and

creating one or more characterization records for at least one data structure of said one or more data structures, one or more transmission events of said plurality of the transmission events being collected to said at least one data structure of said one or more data structures, wherein at least one of said one or more characterization records comprises one or more indicators of a location or locations of one or more data elements comprised in at least one of said one or more transmission events, to allow accessing said at least one of the one or more characterization records to determine said one or more indicators of the location or locations of said one or more data elements.

~~165~~ 167. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said one or more data elements are stored within said at least one data structure.

~~166~~ 168. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said collecting comprises creating observation records of said plurality of the transmission events and storing said observation records in said one or more data structures, such that said at least one data structure of said one or more data structures comprises one or more observation records of said observation records created using one or more transmission events of said plurality of the transmission events, said one or more observation records being generated using one or more characteristics of said one or more transmission events in order to allow entering said one or more observation records to determine whether at least one of said one or more characteristics is present in said at least one data structure.

~~167~~ 169. (Currently Amended) The computer software product of claim ~~166~~ 168, wherein said one or more characteristics of said one or more transmission events are one or more of: a period during which a transmission event of said one or more transmission events is occurred, and an internet protocol address of a node of said one or more nodes transmitted said transmission event.

~~168~~ 170. (Currently Amended) The computer software product of claim ~~166~~ 168, wherein said at least one of said one or more characterization records is an index created using said one or more observation records.

~~169~~ 171. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said at least one of said one or more characterization records is an index comprising one or more of: a type of or an importance level for a transmission event of said one or more transmission events of said plurality of the transmission events, an internet protocol address of a node of said one or more nodes transmitted said transmission event, and an internet protocol address of a node of said one or more nodes being a destination of said transmission event.

~~170~~ 172. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said at least one of said one or more characterization records is an index indicating how to enter said at least one of said one or more transmission events unabridged.

~~171~~ 173. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said one or more characterization records

comprise a summary of said one or more transmission events of said plurality of the transmission events.

~~172.~~ 174. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein at least one of said plurality of the transmission events is a notification.

~~173~~ 175. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said one or more data elements comprise partial or complete data comprised in said at least one of the one or more transmission events.

~~174~~ 176. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said method further comprises:

storing said one or more data structures comprising corresponding said one or more characterization records in a memory, in a non-volatile memory or in a data storage.

~~175~~ 177. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said method further comprises:

storing said one or more data structures with corresponding characterization records as a file system or as a hierarchical file system.

~~176~~ 178. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein one of said one or more characterization records comprise an aggregate summary of said at least one data structure and one or more of other data structures of said one or more data structures.

~~177~~ 179. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein all or selected transmission events of

said plurality of the transmission events are notifications provided by all or selected nodes of said one or more nodes of said network.

~~176~~ 180. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said location or said locations of the one or more data elements are in said at least one data structure of said one or more data structures.

~~178~~ 181. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said method further comprises:
performing compression of said at least one data structure.

~~180~~ 182. (Currently Amended) The computer software product of claim ~~164~~ 166, wherein said method further comprises:
creating a digital signature of said at least one data structure.